

Appl. No. 10/030,319

Amdt. dated March 2, 2005

Reply to Office Action of December 3, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A vehicle remote controller comprising a portable device carried by a driver and a transceiver arranged in a vehicle having a vehicle passenger compartment to output a request signal for intercommunicating with the portable device and to output a transponder driving radio wave, wherein said transceiver has a common antenna for selectively transmitting the request signal and the transponder driving radio wave, and wherein the vehicle passenger compartment includes a first area where the request signal is output and a second area smaller than the first area where the transponder driving radio wave is output.

2. (currently amended) The vehicle remote controller according to claim 1, wherein said transceiver outputs the request signal in at least one of inside the ~~the~~ vehicle passenger compartment and outside the vehicle passenger compartment and outputs the transponder driving radio wave in the inside of the vehicle passenger compartment.

3. (canceled)

4. (currently amended) The vehicle remote controller according to claim 2, wherein said antenna is arranged ~~in adjacent~~ near a center of the vehicle.

5. (previously presented) The vehicle remote controller according to claim 4, wherein said antenna is arranged on a center console.

6. (currently amended) The vehicle remote controller according to claim 5, wherein said transceiver has, within the ~~the~~ vehicle passenger compartment, a mounting portion, on which the portable device is place, and a detecting means, which is arranged on the mounting portion to detect whether the portable device is placed, and when the detecting means detects that the

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portable device is placed on the mounting portion, the transceiver outputs the transponder driving radio wave.

7. (previously presented) The vehicle remote controller according to claim 2, wherein said vehicle has a key switch arranged in the vehicle for being able to start an engine, and the portable device has a mechanical key and the mechanical key has a transponder for receiving the transponder driving radio wave for generating electric power from the transceiver and generating a transponder signal according to the transponder driving radio wave and transmitting the transponder signal to the transceiver.

8. (currently amended) A vehicle remote controller comprising a transceiver arranged in a vehicle having a vehicle passenger compartment to generate a request signal and a transponder driving radio wave, and a portable device carried by a driver, the portable device having a request signal processing circuit for receiving the request signal from the transceiver, generating a first signal based on the request signal, and transmitting the first signal to the transceiver, and a transponder for receiving the transponder driving radio wave, which generates electric power, from the transceiver, generating a transponder signal based on the transponder driving radio wave, and transmitting the transponder signal to the transceiver, wherein said transceiver includes a common antenna for selectively transmitting the request signal and the transponder driving radio wave to the portable device, and wherein the vehicle passenger compartment includes a first area where the request signal is output and a second area smaller than the first area where the transponder driving radio wave is output.

9. (currently amended) The vehicle remote controller according to claim 8, wherein said transceiver outputs the request signal to at least one of the [[a]] vehicle passenger compartment and outside the vehicle passenger compartment and outputs the transponder driving radio wave to the inside of the vehicle passenger compartment.

10. (canceled)

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11. (previously presented) The vehicle remote controller according to claim 9, wherein said antenna is arranged near a center of the vehicle.

12. (previously presented) The vehicle remote controller according to claim 11, wherein said antenna is arranged on a center console.

13. (previously presented) The vehicle remote controller according to claim 12, wherein said transceiver has, within the vehicle passenger compartment, a mounting portion, on which the portable device is placed, and a detecting means, which is arranged on the mounting portion, to detect whether the portable device is placed, and when the detecting means detects that the portable device is placed on the mounting portion, the transceiver outputs the transponder driving radio wave.

14. (currently amended) A transceiver of a vehicle remote controller arranged in a vehicle having a vehicle passenger compartment to output a request signal, used to intercommunicate with a portable device carried by a driver, to one of inside a vehicle passenger compartment and outside the vehicle passenger compartment, and to output a transponder driving radio wave to the inside of the vehicle passenger compartment, wherein said transceiver comprises a common antenna for selectively transmitting the request signal and the transponder driving radio wave, and wherein the vehicle passenger compartment includes a first area where the request signal is output and a second area smaller than the first area where the transponder driving radio wave is output.

15. (previously presented) The vehicle remote controller according to claim 1, wherein the request signal and the transponder driving radio wave have the same frequency.

16. (previously presented) The vehicle remote controller according to claim 8, wherein the request signal and the transponder driving radio wave have the same frequency.

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17. (previously presented) The transceiver according to claim 14, wherein the request signal and the transponder driving radio wave have the same frequency.

18. (previously presented) The vehicle remote controller according to claim 1, wherein the portable device transmits a transponder signal and the common antenna is used to receive the transponder signal from the portable device.

19. (previously presented) The vehicle remote controller according to claim 8, wherein the portable device transmits a transponder signal and the common antenna is used to receive the transponder signal from the portable device.

20. (previously presented) The transceiver according to claim 14, wherein the portable device transmits a transponder signal and the common antenna is used to receive the transponder signal from the portable device.

21. (new) A vehicle remote controller comprising:

a portable device carried by a driver; and

a transceiver arranged in a vehicle having a vehicle passenger compartment to output a request signal for intercommunicating with the portable device and to output a transponder driving radio wave;

wherein the vehicle passenger compartment includes a first area where the request signal is output and a second area smaller than the first area where the transponder driving radio wave is output.

22. (new) A vehicle remote controller comprising:

a transceiver arranged in a vehicle having a vehicle passenger compartment to generate a request signal and a transponder driving radio wave; and

a portable device carried by a driver, the portable device having a request signal processing circuit for receiving the request signal from the transceiver, generating a first signal based on the request signal, and transmitting the first signal to the transceiver, and a transponder

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for receiving the transponder driving radio wave, which generates electric power, from the transceiver, generating a transponder signal based on the transponder driving radio wave, and transmitting the transponder signal to the transceiver;

wherein the vehicle passenger compartment includes a first area where the request signal is output and a second area smaller than the first area where the transponder driving radio wave is output.